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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,039	05/01/2001	Dhadesugoor R. Vaman	7703/29	5212

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EXAMINER	
SWEARINGEN, JEFFREY R	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/847,039	VAMAN ET AL.	
	Examiner	Art Unit	
	Jeffrey R. Swearingen	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 1 May 2001 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

2. The drawings are objected to because of the following: Figure 1A is not present as listed in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of numerous informalities, including:

On page 1, line 23, "needs" should be changed to "need".

On page 4, line 7, "The PVC, therefore serves..." should be changed to "The PVC, therefore, serves...".

On page 4, line 15, "using either and SVC or a PVC" should be changed to "using either a SVC or a PVC."

On page 8, line 5, "permanent virtual circui" should be changed to "permanent virtual circuit".

On page 8, line 16, "negotation" should be changed to "negotiation".

On page 14, line 10, "desire" should be changed to "desired".

On page 20, line 22, "negotation" should be changed to "negotiation".

Appropriate correction of these and other informalities unlisted herein is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Yin et al. (U.S. Patent No. 5,982,748), hereafter referred to as Yin.

Pertaining to claim 1, Yin teaches:

formulating a query message at a client machine, said query message containing a source IP address and a QoS profile requirement of a user application; [Column 5, lines 51-53, where

"various traffic parameters and QoS requirements" is interpreted as "a source IP address and a QoS profile requirement"]

sending the query message to a server machine; [Column 5, lines 53-55]

decoding the query message at the server machine; [Column 5, lines 55-57]

determining availability of PVC connections and SVC connections at the server; [Column 5, lines 61-62]

formulating a response message at the server machine, said response message containing server information and the availability of the PVC connections and the SVC connections; [Column 6, lines 24-35, where a rejection signal is interpreted as a response message. Accepting the request would require an acknowledgement to the client, which is also interpreted as a response message.]

sending the response message to the client machine; [Column 6, lines 26-28. Accepting the request would require an acknowledgement to the client, which is also interpreted as a response message.]

decoding the response message at the client machine; [Column 6, lines 26-28, where decoding the response message is interpreted as receiving the response message sent. Accepting the request would require an acknowledgement to the client, which is also interpreted as a response message.] and

connecting the client machine to the server machine based upon the response message. [Column 6, lines 30-31]

Pertaining to claim 10, Yin discloses:

a QoS selector located at a client machine, the QoS selector gathering client application QoS requirements and formulating connection requests; [column 3, lines 39-41, where a request with QoS requirements is interpreted as gathering client application QoS requirements and formulating connection requests]

a second QoS selector located at a server machine, the second QoS selector receiving the connection requests and formulating connection responses indicating PVC connection availability and SVC connection availability; [column 6, line 16-23, where available resources is interpreted as PVC connection availability and SVC connection availability and where considering the QoS requirements of the requested connection is interpreted as receiving the connection requests. column 6, lines 8-9 shows formulation of connection responses]

means for storing server information at the client machine; [Column 4, lines 40-45 discloses a database tracking connection information. Both client and server must know the appropriate connection information in order to maintain the connection, so both client and server should have a database tracking such information.] and

connection means located at the client machine, said connection means receiving the connection response and connecting the client application to the server machine based upon the connection response. [Figure 3, item 66, where accepting the connection is interpreted as receiving the connection response and connecting the client application to the server machine based upon the connection response]

Pertaining to claim 11, Yin is applied as in claim 10. Yin further discloses the first QoS selector stores an IP address of the client machine in the connection request. [Column 3, lines 39-41, where connection traffic parameters is interpreted as including an IP address of the client machine]

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin in view of Motobayashi (U.S. Pub. No. US 2004/0170178 A1).

Pertaining to claim 2, Yin discloses the invention substantially as claimed. Yin fails to disclose connecting the client machine to the server machine using the PVC connection when the response message indicates that the PVC connection is available.
Motobayashi discloses connecting the client machine to the server machine using the PVC connection when the response message indicates that the PVC connection is available. [Motobayashi, Figure 7A, item 713]
It would have been obvious to one of ordinary skill in the networking art at the time of the invention to have incorporated Motobayashi's teachings of initiating a PVC connection with the teachings of Yin for the purpose of setting an optimum queue to be assigned to the new PVC connection. See Motobayashi, paragraph [0057]. Yin provides motivation by stating that each new connection must receive at minimum the Quality of Service requirements requested. See Yin, column 3, lines 20-35. By this rationale claim 2 is rejected.

Pertaining to claim 3, Yin fails to disclose connecting the client machine to the server machine using the SVC connection when the response message indicates that the SVC connection is available.
Motobayashi discloses connecting the client machine to the server machine using the SVC connection when the response message indicates that the SVC connection is available. [Motobayashi, page 5, paragraph 0063] By this rationale claim 3 is rejected.

Pertaining to claim 4, Yin and Motobayashi are applied as in claim 3. Yin further discloses a local database that stores information regarding existing connections that is updated based on the addition or removal of connections. [Column 4, lines 35-45, which is interpreted as receiving additional response messages from the server; extracting server information stored in the

additional response messages; and storing the server information in a connection database at the client machine]. By this rationale claim 4 is rejected.

8. Claims 5 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin and Motobayashi as applied to claim 4 above, and further in view of Bouillet et al. (U.S. Pub. No. US 2003/0101263 A1).

Pertaining to claim 5, Yin and Motobayashi are applied as in claim 4. Yin does explicitly disclose rejecting a connection if the necessary QoS resources are not available to make the connection [columns 5-6]. Yin and Motobayashi fail to explicitly disclose repeating the steps of claim 4 until a server having the QoS profile has been identified.

Bouillet discloses repeatedly trying to route a call and updating its monitors until a route is discovered that has the bandwidth to meet the call's requirements. [Page 6, paragraph 0071 describes Bouillet's repeated attempts to setup a call if the initial call setup attempt has failed. Attempting to setup the call on a different route and getting information back from the servers if the route is unable to handle the call as described in 0071 and Figure 5 is interpreted as receiving additional response messages from the server; extracting server information stored in the additional response messages; and storing the server information in a connection database at the client machine]

It would be obvious to one of ordinary skill in the networking art at the time of the invention to combine Bouillet's teachings with the teachings of Yin and Motobayashi for the purpose of preventing network roadblocks from excessive traffic on a link. See Bouillet, page 6, paragraph [0076]. Yin provides motivation by stating that each new connection must receive at minimum the Quality of Service requirements requested, and that determining that each connection receives the minimums depends in part on network resource availability. See Yin, column 3, lines 20-35. By this rationale claim 5 is rejected.

Pertaining to claim 6, Yin and Motobayashi describe connecting to a server having a desired QoS profile. Yin and Motobayashi fail to disclose connecting the client machine to the server having the desired QoS profile.

Bouillet discloses connecting the client machine to the server having the desired QoS profile. [page 4, paragraph 0056, where an undersubscribed service route with sufficient available bandwidth is interpreted as having the desired QoS profile]. By this rationale claim 6 is rejected.

9. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin and Bouillet.

Pertaining to claim 7, Yin teaches receiving the connection response from at least one of the plurality of servers, the connection response comprising a QoS level, server information, and connection information; [Yin, column 5, lines 51-55] extracting the QoS level, server information, and connection information from the connection response; [Yin, column 5, lines 59-60] storing the QoS level, server information, and connection information in a connection database; [Yin, column 4, lines 40-45] and searching the connection database for a server having a desired QoS level. [Yin, column 6, lines 16-23] Yin fails to disclose querying a plurality of servers for a connection response; and repeating the steps of querying, receiving, extracting, storing, and searching until the server having the desired QoS level is identified.

Bouillet discloses querying a plurality of servers for a connection response; [page 4, paragraph 0046] storing the QoS level, server information, and connection information in a connection database; [Bouillet, page 6, paragraph 0070] searching the connection database for a server having a desired QoS level; [Bouillet, Figure 5, item 160] and repeating the steps of querying, receiving, extracting, storing, and searching until the server having the desired QoS level is identified. [Page 6, paragraph 0071 describes Bouillet's repeated attempts to setup a call if the initial call setup attempt has failed. Attempting to setup the call on a different route and getting information back from the servers if the route is unable to handle the call as described in 0071 and Figure 5 is interpreted as receiving additional response messages from the server; extracting

server information stored in the additional response messages; and storing the server information in a connection database at the client machine]

It would be obvious to one of ordinary skill in the networking art at the time of the invention to combine Bouillet's teachings with the teachings of Yin for the purpose of preventing network roadblocks from excessive traffic on a link. See Bouillet, page 6, paragraph [0076]. Yin provides motivation by stating that each new connection must receive at minimum the Quality of Service requirements requested, and that determining that each connection receives the minimums depends in part on network resource availability. See Yin, column 3, lines 20-35. By this rationale claim 7 is rejected.

Pertaining to claim 8, Yin and Bouillet are applied as in claim 7. Yin discloses retrieving the server information and the connection information from the connection database; [column 6, lines 3-5] and negotiating a connection between the client application and the desired server using a PVC connection or an SVC connection between the client application and the desired server. [column 6, lines 28-32. Yin discusses connections for an ATM network, which includes PVC connections and SVC connections.]. Yin fails to disclose selecting a desired server based upon the server information and the network information.

Bouillet discloses selecting a desired server based upon the server information and the network information. [page 4, paragraph 0056] By this rationale claim 8 is rejected.

Pertaining to claim 9, Yin and Bouillet are applied as in claim 8. Bouillet fails to disclose repeating the steps of retrieving, selecting, and negotiating when a new connection is requested by the client application.

Yin discloses repeating the steps of retrieving, selecting, and negotiating when a new connection is requested by the client application. [Column 4, lines 34-48, show that Yin receives connection requests and updates a database based on the addition and removal of connections. Therefore

Yin will be able to repeat the steps of retrieving, selecting, and negotiating when a new connection is requested, regardless of its origin.] By this rationale claim 9 is rejected.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin in view of Kozaki et al. (U.S. Patent No. 5,530,698), hereafter referred to as Kozaki.

Pertaining to claim 12, Yin is applied as in claim 11. Yin fails to disclose the second QoS selector stores VPI/VCI connection pair values in the connection response when a PVC connection exists at the server machine.

Kozaki discloses the second QoS selector stores VPI/VCI connection pair values in the connection response when a PVC connection exists at the server machine. [column 6, lines 48-55. Kozaki shows that a PVC connection can be identified with a VPI/VCI pair.]

It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Kozaki with the teachings of Yin for the purpose of discarding packets that were not designated for the PVC connection and allowing packets that were designated to enter the appropriate queue. [Kozaki, column 6, lines 1-64]. Yin provides motivation by attempting to limit cell delays through a queue scheduler algorithm or similar procedure. [Yin, column 4, lines 2-28] By this rationale claim 12 is rejected.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin and Kozaki as applied to claim 12 above, and further in view of Nagami et al. (U.S. Pub. No. US 2004/0015590 A1), hereafter referred to as Nagami.

Pertaining to claim 13, Yin and Kozaki describe establishing ATM connections, including PVC connections. Yin and Kozaki fail to disclose including an ATM address of the server machine when an SVC connection exists at the server machine.

Nagami discloses the second QoS selector includes an ATM address of the server machine when an SVC connection exists at the server machine. [Page 7, paragraph 0107 states that each terminal device or ATM switch mode has its own link layer address.]

It would be obvious at the time of the invention to combine the teachings of Nagami with the teachings of Yin and Kozaki, for the purpose of packet transfer between two networks [see Nagami, page 4, paragraph [0033]. Yin provides motivation by stating that a network node such as an ATM switch or other network device can be used to implement the teachings of Yin. [see Yin, column 4, lines 31-34] By this rationale claim 13 is rejected.

12. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin, Kozaki and Nagami as applied to claim 13 above, and further in view of Motobayashi.

Pertaining to claim 14, Yin, Kozaki and Nagami disclose a method of establishing ATM connections including PVC and SVC connections. Yin, Kozaki and Nagami fail to explicitly disclose the connection means establishes a PVC connection between the client machine and the server machine when the VPI/VCI connection pair values are detected in the connection response.

Motobayashi discloses the connection means establishes a PVC connection between the client machine and the server machine when the VPI/VCI connection pair values are detected in the connection response. [Motobayashi, page 5, paragraph 0063, where determining that the connection is of the PVC system is interpreted as detecting the VPI/VCI connection pair values in the connection response]

Motivation to combine Motobayashi with Yin, Kozaki and Nagami is the same as the motivation used to combine Motobayashi with Yin in claim 2. By this rationale claim 14 is rejected.

Pertaining to claim 15, Yin, Kozaki, Nagami and Motobayashi disclose establishing ATM connections between two nodes, including PVC and SVC connections. Yin, Kozaki and Nagami

fail to explicitly disclose the connection means establishes an SVC connection between the client machine and the server machine when the ATM address is detected in the connection response. Motobayashi discloses the connection means establishes an SVC connection between the client machine and the server machine when the ATM address is detected in the connection response. [Motobayashi, page 5, paragraph 0063, where determining that the connection is of the SVC system is interpreted as detecting an ATM address in the connection response.] By this rationale claim 15 is rejected.

Pertaining to claim 16, Yin, Kozaki, Nagami and Motobayashi are applied as to claim 15. Yin, Kozaki and Nagami fail to disclose the storage means extracts ATM connection information, server mapping information, server QoS information, and server address information from the connection response.
Motobayashi discloses the storage means extracts ATM connection information, server mapping information, server QoS information, and server address information from the connection response. [Motobayashi, page 5, paragraph 0064, where extracting the attribute of the connection is interpreted as extracting ATM connection information, server mapping information, server QoS information, and server address information from the connection response]
By this rationale claim 16 is rejected.

Pertaining to claim 17, Yin, Kozaki, Nagami and Motobayashi are applied as to claim 16. Kozaki, Nagami and Motobayashi fail to disclose the storage means stores the ATM connection information, server mapping information, server QoS information, and server address information in a connection database.
Yin discloses the storage means stores the ATM connection information, server mapping information, server QoS information, and server address information in a connection database. Yin further discloses a local database that stores information regarding existing connections that is updated based on the addition or removal of connections. [Column 4, lines 35-45, which is

interpreted as receiving additional response messages from the server; extracting server information stored in the additional response messages; and storing the server information in a connection database at the client machine]. By this rationale claim 17 is rejected.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamada et al.	U.S. Patent No. 5,581,544
Kujoory et al.	U.S. Patent No. 6,021,263
Ramamurthy et al.	U.S. Patent No. 6,046,981
Aida	U.S. Patent No. 6,212,163
Hamami	U.S. Patent No. 6,487,168
Langley et al.	U.S. Patent No. 6,700,890
Lee et al.	U.S. Patent No. 6,714,972
Tanaka	U.S. Pub. No. US 2001/0032265 A1
Ito	U.S. Pub. No. US 2002/0095504 A1
Barrett et al.	U.S. Pub. No. US 2004/0015583 A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is 571-272-3921 after 19 October 2004. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 703-308-5221 (571-272-3923 after 28 October 2004. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey R. Swearingen
Examiner
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jrs

William C. Vaughn, Jr
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